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Draft Service Center Data Management Web Site Change Control Process

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Abstract: This document describes the change control process for the Service Center Data Management Web Site. Change requests are submitted and tracked through resolution, implementation, verification and release.

Keywords: Change Control, Data Management, Web

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Introduction

(This introduction is not part of the Change Control Process for Service Center Data Management Web Site)

This document describes the change control process for the SCDM web site and supporting tools. Change requests are submitted and tracked through resolution, implementation, verification and release. Roles have been established that govern who is allowed to perform each activity. As events are recorded notifications are sent to those with a need to know that given event.

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Figure 1—Working group list

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Service Center Data Management Web Site Change Control Process

1. Overview

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1.1. Scope

This process applies to all Service Center Data Management Web Site pages. In particular it applies to general page content & behavior, document posting and metadata research capabilities. It also applies to the data administration tools and web site pages used to support loading and management of the metadata in the repository. This change control process does not cover the actual data administration process of loading and managing the metadata.

The Service Center Data Team members and contract staff will follow this process.

1.2. Purpose

The purpose of this document is to provide guidance in the process that is to be followed in updating the SCDM web site and associated tools. This process will assist in ensuring that the correct versions of page contents, documents and software is being served up on the web and that requested changes are made in a timely manner.

1.3. Acronyms and abbreviations

DE	Development Engineer
QE	Quality Engineer
RE	Release Engineer
SCDM	Service Center Data Management
SCDT	Service Center Data Team
SCR	Software Change Request
Sub	Submitter

2. Supporting Tool

Change requests are managed using Merant's PVCS Tracker software. Tracker provides 2 interfaces. One is a client application. The other is a web interface. The web interface provides the ability to submit and update records as well as to run queries. The client interface also provides the ability to submit and update records and run queries. In

addition, it provides the ability to create queries and to create and run reports. Most users interact with Tracker via the web interface. Those with administrative and/or management responsibilities use the client interface. Notifications triggered by events, such as filling in the 'Assigned To' field, are automatically sent via email.

3. Roles

The following roles have been established. Note that persons may perform multiple roles.

Role	Definition
Submitter	Those who can report a problem, request an enhancement or request an evaluation.
Development Engineer	Those responsible for fixing problems, implementing enhancements or responding to evaluation requests.
Quality Engineer	Those responsible for verifying that the fixes and changes have been made correctly.
Release Engineer	Those responsible for building and installing a new release.
Manager	Those responsible for assigning, prioritizing and making final determinations on the status of the SCRs.

4. Change Control Process

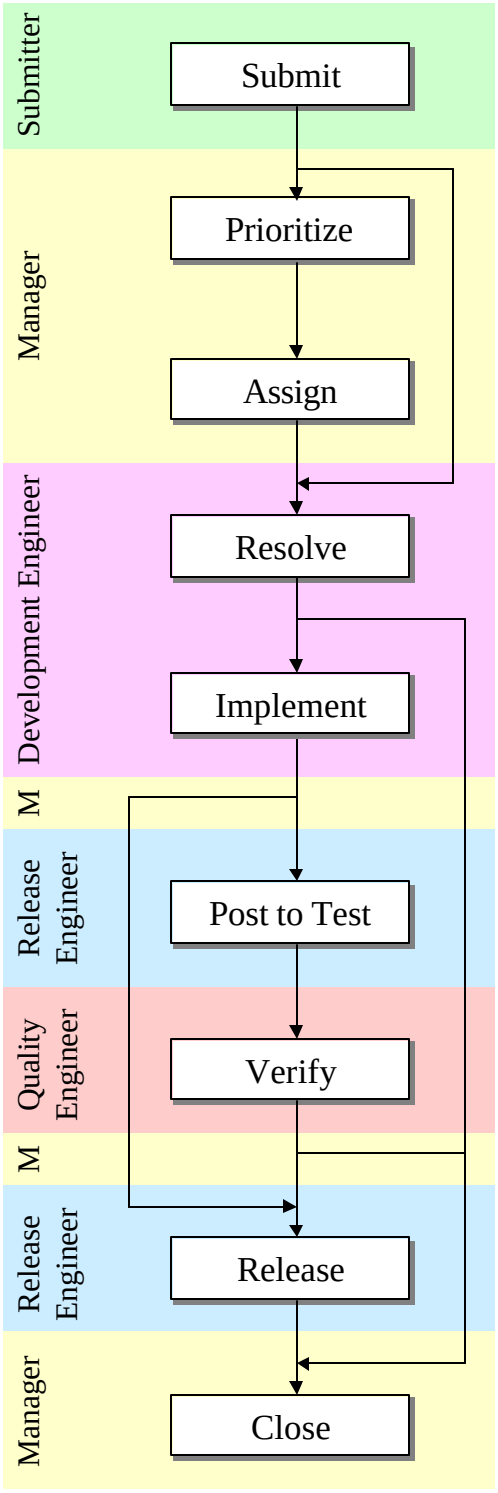
This section identifies the change control process, i.e., the general order of events and who carries out each task.

1. Submitter submits a new SCR.

    1.1. The submitter populates the submission fields as shown.

Title	Required
Description	Required
Submitter	Required
Submit Date	Required
SCR Class	Required
Category	Required
Baseline Release	Optional
Associated SCR	Optional

    1.2. The submission screen also allows the population of the prioritizing and assignment fields. These would not typically be populated at submission time. But are included here for convenience. For example, someone identifies a broken link that needs to be fixed immediately for a demonstration. They would want to



immediately assign the request so work can begin without have to first submit the SCR and then go to the update screen to enter the additional information. Currently all submitters are allowed to populate these fields.

2. Manager prioritizes and assigns SCR.

2.1. The manager is notified of new SCRs and is responsible for prioritizing and assigning. The manager is the one who enters the information. However, the data team is involved in this activity when needed.

2.2. Priority related fields are as shown. Priorities can be specified at two levels. Typically a general classification (Priority Class) is set. If needed, a numeric priority (Priority Order) can also be set to prioritize items within a given class. In addition the 'Target Release Type field can be populated at this time. The manager may also wait until a request is assigned to populate the 'Release Plan' field.

Priority Class	Required
Priority Order	Optional
Target Release Group	Optional
Target Release Type	Optional

2.3. Assignment related fields are as shown. When work is authorized to begin on the request the 'assigned to' field is set. When this field is set the 'assigned to' person is notified. For problems and enhancements the 'Target

Release Type' field must be set. This provides direction to the developers, quality engineers and release engineers as to how to handle bringing this request to production.

Assigned To	Required
Target Release Type	Conditional
Target Release Group	Optional

2.4. Assignment is made to the individual responsible for the request. This may be the actual developer or it may the team leader who will delegate work within their team.

3. Developers resolve and implement requests.

3.1. If a request has been assigned to a team leader they will fill in the 'resolved by' field when the SCR has been delegated to a specific team member. The developer will be notified when assignment to 'resolved by' has been made.

3.2. Resolution fields are as shown. A request can result in no action being required. In that case the resolution fields are populated and implementation fields are left null. Resolution fields are only required if the request does not result in implementation or if there is extensive research involved in identifying what must be done. When the implementation effort is simple or straightforward these fields are not required. 'Target Release Type' and 'Target Release Group' may be filled here or when implementation fields are populated. Detail notes related to resolution should be captured in 'Notes' or 'Attachments.'

Resolution Type	Conditional
Resolved By	Conditional
Resolution Date	Conditional
Estimated Days	Optional
Target Release Group	Optional
Target Release Type	Optional

3.3. Implementation fields are as shown. The implementation fields should be populated when implementation is complete. The target release type for this may also be populated at this time. Quality engineers are notified when the 'implemented by' field is populated.

Implemented By	Required
Implementation Date	Required
Target Release Group	Optional
Target Release Type	Optional

3.4. If a determination is made that the SCR has not been assigned to the right party, the developer can unassign or they can reassign if they know who to assign the SCR to. For example, a problem may be assigned to software folks but after

reviewing the SCR they determine it is a site configuration issue that needs to be handled by the system administrators for the site.

4. Release engineers post fixes and enhancements to test site with direction from manager

4.1. When a SCR has been implemented and verification is required the manager may be involved in scheduling when a given SCR is moved to the test machine by populating the Post to Test field. If 'Pending Actions' is selected an associated note with a title of 'Pending Actions' should be entered giving the detail of what must be done before moving the SCR to the test machine. When Pending Actions are complete the manager will change 'Post to Test' to 'Immediately'.

Post to Test Action	Conditional

4.2. The release engineer will then post the given SCRs to the test site, populating the following fields to trigger notification to the Quality Engineers.

Post to Test By	Required
Post to Test Date	Required
Post to Test Release	Optional

5. Quality engineers verify fixes and enhancements.

5.1. When a SCR has been implemented and verification is required the quality engineer tests the fix or enhancement on the test site. Verification fields to be populated are as shown. If verification will take a while Verification Start and Verified By can be populated when it starts to indicate work is in process. Different approaches can be used in dealing with verification. On a major enhancement a new SCR specifying the problem should be entered and cross-referenced using the Associated SCR field. When failures occur on these secondary SCRs or other general SCRs, iterations on resolution can be tracked using Notes or a new SCR could be opened (by QE) and the existing one closed (by Manager). The 'associated SCR' field should be populated in both directions. The release engineer is notified when verification is complete.

Verified By	Required
Verification Start	Optional
Verified Date	Required
Verification Results	Required
Verified Release	Optional
Associated SCR	Conditional

6. Release engineer builds new release and installs patch or new release with direction from manager.

6.1. The release engineer builds new releases based on the release schedule, currently once a week, max. Items included in the release are those that have been

implemented and verified if needed based on 'Release Process'. Patches may be included if their completion synchronizes with a scheduled release.

6.2. Patches are applied directly to the production site as soon as they are ready without waiting for a scheduled release; verification may be required.

6.3. When verification is required the manager will typically determine the schedule of moving items to production following successful verification. Indications are either 'Immediately' or 'Next Scheduled Build'. The default setting of 'None' implies do nothing yet.

Post to Prod Action	Conditional

6.4. Upon completion of the release, release engineers populate the release fields as shown.

Release By	Required
Release Date	Required
Production Release	Optional

7. Manager oversees activity and closes requests.

7.1. The manager monitors all activity and does the final close out of a request.

8. General

8.1. The notes feature is used for clarification and exchange of information between any party involved with a request.

8.2. Attachments can also be used as needed to exchange information. Typical attachments include requirement documents, test data, etc.

5. Detail Field Definitions

Table 1 – SCDT Tracker Fields – Definitions & Update Rights Summary

Field Name	Definition	Sub	DE	QE	RE	Mgr
Assigned To	The person the SCR was assigned to for resolution and/or implementation.	X				X
Associated SCR	'Id' of an associated SCR. Format is '#nn'.	X	X	X		X
Baseline Release	The identifying label of the release where the problem was identified or to which the enhancement is to be applied.	X	X			X
Category	A classification label to identify a specific area within the SCDM web site affected by the SCR.	X				X
Close Date	The date the SCR was closed.					X
Description	A text description of the problem, enhancement or evaluation request.	X				X
Estimated Days	An estimate of the number of days required to implement the SCR.		X			X
Id	A unique identifier for the SCR.					
Implemented By	The person who implemented the SCR.		X			X

Field Name	Definition	Sub	DE	QE	RE	Mgr
Post to Prod Action	An indication of when to post the SCR to the production machine.					X
Post to Test Action	An indication of when to post the SCR to the test machine.					X
Post to Test By	The person who posted the change to the test machine.				X	X
Post to Test Date	The date the SCR was posted to the test machine.				X	X
Post to Test Release	The label identifying the release the SCR was included in when posting to the test machine.				X	X
Priority Class	A general classification of severity of the SCR, giving an indication of the urgency for responding to the SCR.	X				X
Priority Order	A numeric ranking of SCRs within a priority class.	X				X
Production Release	The identifying label of the production release this SCR was implemented in.				X	X
Release By	The person who did the release.				X	X
Release Date	The date the release was done.				X	X
Resolution Date	The date the SCR was resolved.		X			X
Resolution Type	Label designating the resolution state of the SCR.		X			X
Resolved By	The person who resolved the SCR.		X			X
SCR Class	A classification of the kind of request being made.	X				X
State	A basic designation of whether the SCR is open or closed.					X
Submit Date	The date the SCR was submitted.	X				X
Submitter	The person who submitted the SCR.					X
Target Release Group	The identifying label for a group of SCRs that should be released as a unit.		X			X
Target Release Type	An indication of urgency of implementing this SCR on the production site.	X				X
Title	A short text descriptor of the problem.	X				X
Verification Results	An indication of whether the SCR passed or failed verification.			X		X
Verification Start	The date verification of the SCR started.			X		X
Verified By	The person who verified the SCR.			X		X
Verified Date	The date verification of the SCR was completed.			X		X
Verified Release	The label identifying the release the SCR was verified in.			X		X

Table 2 – SCDT Tracker Fields – Additional Detail

Field Name	Data Type	Size	Default Setting	Permissible Values
Assigned To	User	-	<Unassigned>	Development Engineers
Associated SCR	String	32	-	-
Baseline Release	String	32	-	See Release Identification [1].
Category	Choice	-	<None>	SCDM General SCDM Documents SCDM Research Import-Export SCDM Admin SCDM Installation Other <None>
Close Date	Date	-	Unassigned	-

Field Name	Data Type	Size	Default Setting	Permissible Values
Description	String	16384	-	-
Estimated Days	String	32	-	-
Id	Number	-	Auto increments by 1	-
Implemented By	User	-	<Unassigned>	Development Engineers
Implemented Date	Date	-	Unassigned	-
Post to Prod Action	Choice	-	<None>	Patch Scheduled Build <None>
Post to Test Action	Choice	-	<None>	Immediately Pending Actions
Post to Test By	User	-	<Unassigned>	Release Engineers
Post to Test Date	Date	-	Unassigned	-
Post to Test Release	String	32	-	See Release Identification [1].
Priority Class	Choice	-	<None>	Showstopper Critical Moderate Minor Cosmetic <None>
Priority Order	Number	-	-	0 thru 10
Production Release	String	32	-	See Release Identification[1].
Release By	User	-	<Unassigned>	Release Engineers
Release Date	Date	-	Unassigned	-
Resolution Date	Date	-	Unassigned	-
Resolution Type	Choice	-	<None>	Do Not Fix Deferred Doable Duplicate Not a Problem Not Repeatable <None>
Resolved By	User	-	<Unassigned>	Development Engineers
SCR Class	Choice	-	<None>	Problem Enhancement Evaluate/Estimate Other <None>
State	Choice	-	Open	Closed Open
Submit Date	Date	-	<Current Date>	-
Submitter	User	-	<Current Login User>	-
Target Release Group	String	32	-	-
Target Release Type	Choice	-	<Scheduled Release w/Verify>	Scheduled Release w/Verify Scheduled Release Patch w/Verify Immediate Patch
Title	String	80	-	-
Verification Results	Choice	-	<None>	Pass Fail <None>
Verification Start	Date	-	<Unassigned>	-
Verified By	User	-	<Unassigned>	Quality Engineers
Verified Date	Date	-	<Unassigned>	-

[1] Indicating the site and build designation identifies releases. The following designations are used for the site: 'KCP' – Production site in Kansas City; 'KCT' – Test site in Kansas City; 'Soza' – Test site at Soza. Example: 'KCP 1.2'.

Field Name	Data Type	Size	Default Setting	Permissible Values
Verified Release	String	32	-	See Release Identification [1].

Table 3 – Category Value Definitions

Value	Definition
SCDM General	Request is related to general web site, general layout or look & feel, home page, etc.
SCDM Documents	Request is related to documents.
SCDM Research	Request is related to research features.
Import-Export	Request is related to import or export routines.
SCDM Admin	Request is related to administration site.
SCDM Installation	Request is related to installation.
Other	Request does not fit any of the other categories

Table 4 – Priority Class Value Definitions

Value	Definition
Showstopper	The problem identified in the SCR prevents the site or some portion of the site from functioning or it may be functioning incorrectly to the extent that it requires immediate attention. This may apply to areas other than the web site, for example the import/export routines that support the site. Showstoppers need immediate attention.
Critical Moderate Minor	These requests identify problems, enhancements, etc. with varying levels of importance. These are not as urgent as showstoppers. Value is determined by assessing the impact of the problem, the need for the enhancement, the urgency of the evaluation, etc. They are addressed in the order of priority as shown.
Cosmetic	These requests do not impair the functioning of the web site. They are addressed as time permits. For example, they may be handled when other work in the same area is being performed. Or they might be addressed when a significant number of them have been accumulated. Cosmetic requests are given attention as time permits.

Table 5 – Target Release Type Value Definitions

Value	Definition
Immediate Patch	The change should be installed immediately on the production site without waiting for the next scheduled build. Verification is not required.
Patch w/Verify	The change should be installed immediately on the production site without waiting for the next scheduled build. Verification is required before it can be installed.
Scheduled Release	The change should be installed on the production site as part of the next scheduled build. Verification is not required.
Scheduled Release w/Verify	The change should be installed on the production site as part of the next scheduled build. Verification is required before it can be moved to production.

Table 6 – Post to Prod Action Value Definitions

Value	Definition
Immediately	The SCR can be posted to the production machine immediately.
Next Scheduled Build	The SCR can be posted to the production machine as part of the next scheduled build.

Table 7 – Resolution Type Value Definitions

Value	Definition
Do Not Fix	The request was evaluated and a determination was made that no action should be taken even though a valid problem may have been identified. The request should then be closed.

Value	Definition
Deferred	The request has been deferred for later consideration. The request is left open but no further action is taken on the request at this time.
Doable	A determination has been made that the request is doable and should be implemented.
Duplicate	It was determined that this is a duplicate request. The Id(s) of the duplicate request(s) are entered in the 'Associated SCR' field. The request is closed.
Not a Problem	It was determined that the request is not a valid problem. For example, the submitter may have identified something that is actually functioning correctly and may just need clarification to understand the behavior. The request is closed.
Not Repeatable	The developers have been unable to duplicate the condition identified in the SCR. The SCR is closed.

Table 8 – SCR Class Value Definitions

Value	Definition
Problem	The request identifies something that is not working or is not working according to requirements.
Enhancement	The request identifies new functionality to be added to the system.
Evaluate/Estimate	The request identifies an area to be evaluated or estimated. Estimates can be entered in the 'Estimated Days' field. Evaluation results would be stored in a 'Note.' When an evaluation/estimate is complete the implementation fields should be populated. Requests marked evaluate/estimate are not to be implemented. A separate request will be generated if and when go ahead is given for implementation.

Table 9 – State Value Definitions

Value	Definition
Open	The request is open. Work on the request may be in process. Or, work on the request is still pending.
Closed	The request has been closed. No further action will be taken.

Table 10 – Post to Test Action Value Definitions

Value	Definition
Immediately	The SCR can be posted to the test machine immediately upon completion of implementation.
Pending Actions	The SCR can be posted to the test machine when actions specified in a Note titled 'Pending Actions' are completed.